



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

MF

QW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/201,867 11/30/98 TAKAMI

Y HIT2944

EXAMINER

AKERS, G

ART UNIT

PAPER NUMBER

2164

DATE MAILED:

10/24/00

TM31/1024
FAY SHARPE BEALL FAGAN MINNICH & MCKEE
1100 SUPERIOR AVENUE
SUITE 700
CLEVELAND OH 44114

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SK

Office Action Summary

Application No.
09/201,867

Applicant(s)

Takami et al

Examiner

Geoffrey Akers

Group Art Unit
2765



☒ Responsive to communication(s) filed on Jul 13, 2000

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 23-37 is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 23-37 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 2765

DETAILED ACTION

Response to Amendment

1. The text of those sections of Title 35, US Code not included in this action can be found in a prior Office action. The text of those sections of Title 35, US Code not otherwise provided in an Office action will be included in this action where appropriate.
2. This action is responsive to the Applicant's response filed 7/13/00.
3. Applicant has cancelled original claims 1-22 and has added new claims 23-37 in his amendment.
4. New claims 23-37 are pending.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 26 is rejected under 35 USC 102(b) as anticipated by Jones(US Pat. No: 5,623,547).
7. As per claim 26 Jones teaches a terminal device according to claim 23, further comprising a display device(Fig 1/1b/2b/3b)(col 5 lines 34-35) and an input device(col 5 lines 44-52).

Art Unit: 2765

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 23-37 are rejected under 35 USC 103(a) as unpatentable over Jones(US Pat. No: 5,632,547) in view of Shiobara et al(US Pat. No: 6,105,864), and further in view of Benton(US Pat. No: 4,454,414).

10. As per claim 23 Jones teaches a terminal device used in an electronic money system comprising a data processor which processes data in an IC card storing electronic money information(col 2 line 15-45) and a communication circuit which communicates with a second external device through a public line(col 4 lines 6-12)(Fig 1/5)(col 5 line 41) a switching circuit which switches between a first path and a second path(col. 5 lines 48-52) said first path outputting data input from a first external device (col 5 line 49)to said communication circuit and said second path outputting electronic money data from said data processor to said communication circuit(Fig 1/1b/2b/3b)(col 4 lines 1-18). Jones fails to teach a control circuit which controls a data processor to switch from a first path to a second path at a time of transaction of electronic money. Shiobara teaches a control circuit which controls said data processor, said communication circuit, and said switching circuit wherein, said control circuit controls said switching circuit to switch from said first path to said second path at a time of

Art Unit: 2765

transaction of electronic money information(col 3 lines 14-49)(col 2 lines 27-39). It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Shiobara to teach the above. The motivation is to provide a method for performing refunds, and multiple transactions.

11. As per claim 24 Benton teaches a terminal device according to claim 23, wherein said control circuit controls said switching circuit to switch from said second path to said first path after completion of said transaction of electronic money information(col 4 lines 43-49)(Fig 1/30).It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation for this is to provide for for separate trnsactions between distinct accounts without commingling.

12. As per claim 25 Benton teaches a terminal device according to claim 23, wherein said control circuit controls said switching circuit to switch from said first path to said second path in accordance with a designation from said first external device to start said transaction of electronic money information(col 4 lines 43-46)(Fig 1/30).It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation for this is to operate on separate accounts as necessary.

13.As per claim 27 Benton teaches a terminal device according to claim 23, further comprising a power circuit having a storage battery(col 5 lines 3-10).It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of

Art Unit: 2765

Shiobara to teach the above. The motivation is to have a storage battery to supply energy to the circuitry for storage.

14. As per claim 28 Jones teaches a value transfer system having a terminal device according to claim 27(Fig 1/5) as the user's input computer connected by a communication line to a host computer at a bank(col 5 lines 41-42). Jones fails to teach the system wherein said storage battery is charged through said communication circuit. Benton teaches a terminal device and system with a power supply from the host computer(col 5 lines 3-10). It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation for this is establishing a means for charging the signal processing circuitry as a means for operating on the value transfer network.

15. As per claim 29, Jones teaches a value transfer system having a terminal device according to claim 27(Fig 1/5). Jones fails to teach the system further comprising a power supply circuit receiving power supply from an external power source. Benton teaches a terminal device and system with a power supply device(col 5 lines 8-10)(Fig 2/46). It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach a power supply circuit in a terminal device wherein a storage battery is charged through said power supply circuit. The motivation for this is to create an energy source through the conventional electrical power supply for the operation of the system.

16. As per claim 30 Benton teaches a terminal device according to claim 27, further comprising a power receiving circuit which receives power from an external power source(Fig

Art Unit: 2765

2/46) and a selector which selects one of said power receiving circuit(Fig 1/30/38) and said power circuit wherein said selector selects said power receiving circuit to apply an output voltage of said power receiving circuit as supply voltage to said terminal device in an ordinary state(col 5 lines 3-11), and selects said power circuit to apply the output voltage of said power circuit as supply voltage to said terminal device. Benton fails to teach selection of the output voltage of the power supply circuit when said output voltage of said power receiving circuit drops below a predetermined value.It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation is to regulate the voltage level to the terminal.

17. As per claim 31 Jones teaches a terminal device according to claim 30, connected by a telephone communications system to host computers(col 5 lines 41-42).Jones fails to teach that the electronic money transaction system further comprises a light emitting device capable of generating light instruction signals and combined with an external information processor and a light receiving device capable of receiving the light instruction signals and combined with said terminal device wherein, upon receiving the light instruction signal, the external information processor provides at least an electronic money information transaction start instruction to be given to the control circuit to instruct the control circuit to start the electronic money information transaction.Benton teaches an optically coupled, portable module funds transfer system(col 2 lines 27-37), which provides an electronic funds transfer system wherein at the point of transaction a pair of modules are aligned to permit a beam of light to act as a carrier and

Art Unit: 2765

create an optical coupling link and permit transfer of electronic funds(col 2 lines 38-44).It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation for this is to describe an alternative means of funds transfer in an electronic money transfer system.

18. As per claim 32 Jones teaches a terminal device according to claim 31 connected to host computers in an electronic money transfersystem(col 5 lines 41-42)(Fig 1/5/1/2/3). Jones fails to teach the apparatus further comprising an input device that enters instructions to said control circuit combined with said terminal device at least an electronic money information transaction start requesting device combined with said light receiving device . Benton teaches the apparatus further comprising an input device that enters instructions to the control circuit combined with the terminal device at least an electronic money information transaction start requesting device combined with a light receiving device (col 2 line 54-col 3 line 7) wherein, said input device provides the electronic money information transaction start instruction to the control circuit, and the electronic money information transactions are carried out through said electronic money information transaction start requesting device.It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation for this is for improved reliability and convenience as opposed to electrical connections with their intermittant failures.

19. As per claim 33 Benton teaches an electronic money information transaction system according to claim 23, wherein said data processor comprises a display capable of displaying

Art Unit: 2765

image information(col 3 lines 17-22). It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation for this is to have a display of the figures in the accounts to track transactions.

20. As per claim 34 Benton teaches a terminal device according to claim 23, wherein said second path further comprising a light emitting device which transmits data processed(col 3 lines 11-14) in said data processor as light signals and a light receiving device which receives the light signals from said light emitting device, and provides the light signals to said communication circuit(col 4 lines 22-col 5 line 30)(col 3 lines 27-45).It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton and further in view of Shiobara to teach the above. The motivation for this is to describe an electronic money transaction system utilizing optical coupling.

21. As per claim 35 Benton teaches a terminal device according to claim 23, wherein said control circuit controls said switching circuit to switch from said first path to said second path, in accordance with a designation inputted from said second external device through said communication circuit(col 4 lines 43-49)(Fig 1/30). It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Shiobara and further in view of Benton to teach the above. The motivation for this is to manage account transactions for designated accounts.

Art Unit: 2765

22. Claims 36-37 are rejected under 35 USC 103(a) as unpatentable over Jones(US Pat. No: 5,623,547) and further in view of Benton(US Pat. No: 4,454,414).

23. As per claim 36 Jones teaches a terminal device used in an electronic money system, comprising a first terminal device including an input device which enters data from a first external device, a communication circuit which communicates with a second external device through a public line(col 4 lines 6-12)(Fig 1/5)(col 5 line 41). Jones fails to teach a light receiving device which receives light signals a second terminal device including, a data processor which processes data in an IC card storing electronic money information, a light emitting device which generates light signals for sending to said first terminal device, and a control circuit which controls said data processor and said communication circuit. Benton teaches a light receiving device which receives light signals and a second terminal device including a data processor which processes data in an IC card storing electronic money information(col 2 lines 17-20), as well as a light emitting device which generates light signals for sending to the first device and a control circuit which controls said communication circuit(col 3 lines 23-35)(col 3 lines 8-22)and a switching circuit in said first terminal device(col 4 lines 43-49)(Fig 1/30), which switches between a first path and a second path, said first path outputting data input from said first external device to said communication circuit, and said second path outputting electronic money data from said data processor of said second terminal input through said light receiving device to said communication circuit(col 3 lines 11-13) wherein said control circuit in said second terminal device controls said switching circuit to switch from said first path to said second path at a time

Art Unit: 2765

of transaction of electronic money(Fig 1/30). It would have been obvious to one skilled in the art at the time of the invention to combine Jones in view of Benton to teach the above. The motivation for this is to teach an optically coupled electronic money transaction system.

24. As per claim 37 Jones teaches a first terminal device used in an electronic money system having a second terminal device including a data processor which processes data in an IC card storing electronic money information(col 2 lines 15-45), which communicate with each other through a public communication line(col 4 lines 6-12)(Fig 1/5)(col 5 line 41). Jones fails to teach an optically coupled electronic money transaction system. Benton teaches a light emitting device(col 4 line 51)(Fig 1/32) which generates light signals for sending to said first terminal device and a control circuit which controls said data processor, said first terminal device comprising an input device which enters data from a first external device a communication circuit which communicates with a second external device and a light receiving device(Fig 1/34) which receives light signals and a switching circuit(col 4 lines 43-49)(Fig 1/30) which switches between a first path and a second path(col 4 lines 47-49), said first path outputting data input from a first external device to said communication circuit(col 3 lines 17-21) and said second path outputting electronic money data from said data processor of said second terminal device input through said light receiving device to said communication circuit(col 3 lines 11-13)wherein said switching circuit switches from said first path to said second path at a time of transaction of electronic money according to a control signal from said control circuit in said second terminal device(Fig 1/30). It would have been obvious to one skilled in the art at the time of the invention

Art Unit: 2765

to combine Jones in view of Benton to teach the above. The motivation for this is to teach an optically coupled electronic money transaction system.

Response to Arguments

25. Applicant's arguments filed 7/13/00 have been fully considered but they are not persuasive.

Applicant concedes that the terminals cited in Jones are comparable to the first external device as claimed by Applicants and the bank computers cited in Jones are comparable to the second external device of the invention, as the host computer system. There only remains the issue of combinations of elements of the existing art, as directed toward Applicant's invention.

The combination of Jones with Benton demonstrates that the electronic money transaction system may be used to manage specific accounts either optically, or electronically. When used in combination with Shiobara, the device (terminal) as a limiting factor is eliminated, permitting transaction switching to various locations either on an optical or electrical basis. Thus, refunds, as well as using the host computer as a safe for electronic money are possible.

The combination of Jones, Benton and Shiobara as cited in Response to Amendments renders each claim of Applicant unpatentable. Furthermore, Applicant's arguments are moot in view of the new grounds for rejection as necessitated by Applicant's new claims.

Art Unit: 2765

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

26 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Yoshida teaches an IC card and financial processing system
- Brake teaches a consumer activated multi-value card
- Corder teaches a smart card system for transferring value
- Carlisle teaches a smart card with multiple charge accounts

Art Unit: 2765

-Kumomura teaches a computer implemented method for processing various transactions using a plurality of cards

Any questions regarding this communication should be addressed to the examiner, Dr. Geoffrey Akers who can be contacted at (703)-306-5844 between the hours of 6:30 AM and 5:00 PM Monday through Thursday. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Tariq Hafiz may be telephoned at (703)-305-9643

GRA

October 3, 2000


VINCENT MILLIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

2166